

Serial No. 10/088,063
Reply to Office Action of December 13, 2004

REMARKS

The present invention relates to both a method and apparatus for the treatment of carbonaceous material. The process includes the step of introducing the material into a chamber having a closure means. The oxygen within the chamber is either extracted or displaced to provide a substantially free oxygen depleted atmosphere.

Thereafter, the material is irradiated by electromagnetic radiation of sufficient power and for a sufficient period of time to cause substantial degradation of the carbonaceous material to an ash-like residue. This ash-like residue is similar, but not identical, to ash that is formed from combustion.

Thereafter, oxygen and at least one combustible gas is introduced into the chamber and ignited to cause combustion, thus reducing the residue from the irradiation step to a fine ash.

Claims 1-16 are all directed to the process for treating the carbonaceous material. Claims 17-36, on the other hand, are directed to the apparatus for the treatment of carbonaceous material. All claims remain in this application and all the claims have been submitted at this time for reconsideration and allowance by the Patent Examiner.

The Patent Examiner, however, has rejected all of the claims in this application as unpatentable under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. This is a new ground for rejection of the claims in this case. Since this is a new basis for rejection of the claims in this case, Applicant must assume that this new basis for rejection was caused by the amendments introduced to the patent claims in the amendment filed October 19, 2004.

The October 19, 2004 amendment, other than correcting the obvious numbering inconsistency of the paragraphs in claim 1, merely introduced the word "thereafter" into claim 1.

Serial No. 10/088,063

Reply to Office Action of December 13, 2004

The word "thereafter" clarifies that, after the preliminary treatment of the material by irradiating the material with the electromagnetic radiation in an oxygen-depleted atmosphere, oxygen is reintroduced and the material combusted. An essentially identical amendment was also made to claim 17, i.e. the second independent claim in this application.

Applicant respectfully submits that the limitation of reintroducing the oxygen and combusting the material after the preliminary treatment by the electromagnetic radiation in an oxygen-depleted atmosphere is fully supported by the patent specification as originally filed.

More specifically, the Patent Examiner's attention is directed to page 4, line 21 – page 5, line 9 of the patent specification. It is crystal clear from this portion of the patent specification that the carbonaceous material is subjected to a "preliminary" treatment by irradiating the material with the electromagnetic radiation in an oxygen-depleted atmosphere. Since the treatment of the material with the electromagnetic radiation in an oxygen-depleted atmosphere constitutes a "preliminary" treatment, it is only logical that the subsequent steps of reintroducing the oxygen and combusting the carbonaceous material must ensue after these preliminary steps. Furthermore, it is rudimentary that there can be no "combustion" in the absence of oxygen. Therefore, since the "preliminary" treatment occurred in an oxygen-depleted atmosphere, the reintroduction of the oxygen and the combustion of the material must necessarily follow the preliminary treatment.

The Patent Examiner's attention is further directed to the Abstract of the disclosure which is reproduced, in part, below:

"A process for the treatment of organic matter, particularly human remains, comprises the steps of preliminary microwave irradiation in an oxygen-depleted atmosphere to give a black ash-like residue, followed by combustion of the residue to give a white ash."

Serial No. 10/088,063
Reply to Office Action of December 13, 2004

This portion of the Abstract is crystal clear that the preliminary microwave radiation is conducted in an oxygen-depleted atmosphere followed by combustion of the residue to give a white ash. Since the microwave radiation occurred in an oxygen-depleted atmosphere, it necessarily follows that the reintroduction of the oxygen (which is required to achieve combustion) must occur after the irradiation step.

For all the foregoing reasons, Applicant respectfully submits that the patent specification as originally filed fully supports the amendments made to both claims 1 and 17 in the October 19, 2004 amendment. For that reason Patent Examiner's rejection of the claims under 35 U.S.C. §112 as failing to comply with the written description requirement, is in error and should be withdrawn.

The Patent Examiner has also rejected claims 1-16 under 35 U.S.C. §112, second paragraph, for failure to particularly point out and distinctly claim the subject matter sought to be patented. In particular, the Patent Examiner objects to the phrase "ash-like" contained in claim 1, the independent claim. However, for the reasons discussed below, Applicant respectfully submits that this basis for rejection of the claims 1-17 is in error and should be withdrawn.

First, Applicant fully agrees with the Patent Examiner that, if Applicant had used the phrase "ash or the like" the claims would clearly be indefinite under 35 U.S.C. §112. However, that is not the language used in claim 1. Instead, Applicant used the language "ash-like," not "ash or the like."

Furthermore, the term "ash-like" was selected by the patent Applicant to differentiate the material produced by the electromagnetic radiation in the oxygen-depleted atmosphere from ash of

Serial No. 10/088,063
Reply to Office Action of December 13, 2004

the type that results from combustion of the material. Although they are similar in some respects, they are certainly not the same.

In addition, Applicant reminds the Patent Examiner that the patent Applicant may be his or her own lexicographer. In this case, the term "ash-like" was used repeatedly and consistently throughout the patent specification to describe the residue formed by the irradiation of the carbonaceous material in the oxygen-depleted atmosphere: see page 5, lines 1-9, as well as the Abstract of the disclosure. As such, Applicant respectfully submits that there is no basis for the Patent Examiner's rejection of claims 1-17 under 35 U.S.C. §112 for Applicant's use of the clearly defined and consistently employed phrase "ash-like."

Lastly, Applicant respectfully submits that the finality of the Office Action dated December 13, 2004 is premature and should be withdrawn by the Patent Examiner pursuant to MPEP 706.07(a). That portion of the MPEP specifies that a rejection should not be made final where the Examiner introduces a new ground of rejection that is neither necessitated by Applicant's amendment of the claims, nor based upon the information submitted in the IDS.

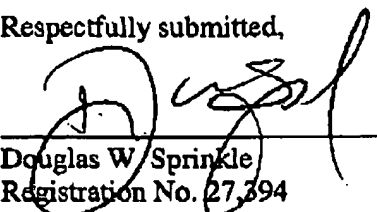
In this case, the Patent Examiner has raised a new basis for rejection of claims 1-16 under 35 U.S.C. §112, second paragraph, i.e. the Applicant's use of the phrase "ash-like." This phrase, however, has been included in claim 1 since the filing of this application and no objection or rejection of the claim based upon the phrase "ash-like" has been made by the Patent Examiner prior to his December 13, 2004 Office Action.

Since the Patent Examiner has raised a new basis for rejection not necessitated by amendments to the claims made by the Applicant or information contained in an IDS, the finality of the December 13, 2004 rejection is premature and should be withdrawn.

Serial No. 10/088,063
Reply to Office Action of December 13, 2004

In view of the foregoing, Applicant respectfully submits that the instant application is now in condition for formal allowance and such action is respectfully solicited.

Respectfully submitted,



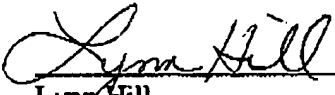
Douglas W. Sprinkle
Registration No. 27,394
Gifford, Krass, Groh, Sprinkle,
Anderson & Citkowski, P.C.
2701 Troy Center Drive, Suite 330
P.O. Box 7021
Troy, MI 48007-7021
(248) 647-6000

Attorney for Applicant

Dated: June 13, 2005

CERTIFICATE UNDER 37 CFR 1.8(a)

I hereby certify that this correspondence is being sent to the United States Patent Office via facsimile (703-872-9306) on June 13, 2005.



Lynn Hill